

Max's Mathematical Market Challenge

Learning objective: To demonstrate fluency in multiplication and division facts up to 12×12 and apply these skills to solve multi-step word problems involving currency.

Help Max the monkey organise his market stall. Use your knowledge of times tables to calculate the total costs and solve the puzzles. Show your working out clearly.

Max is preparing for the Great Orchard Market. He has 12 crates of apples, and each crate holds 9 apples. He also has 8 bags of oranges, with 12 oranges in each bag. Max needs to price his fruit carefully to make sure he covers his costs while keeping his prices fair for the local villagers. He sells individual apples for 15p each and individual oranges for 20p each.

Word bank: multiplication · product · factor · quotient · calculation · remainder

1. Max sold all of his apples. How many apples did he have in total, and what is the total value of the apples if they are sold at 15p each? Give your answer in pounds (£). (3 marks)

2. If Max has 8 bags of oranges with 12 oranges in each, how many oranges does he have in total? If he sells them all at 20p each, what is the total revenue? (3 marks)

3. Max decides to bundle the oranges into groups of 4. How many bundles can he make in total? (2 marks)

4. A customer buys 7 apples and 5 oranges. How much change would they get from a £5.00 note? (3 marks)

5. Max wants to arrange his remaining 108 apples into equal rows. List three different ways he could arrange them using his knowledge of factors. (3 marks)

Draw: Draw Max the monkey standing by his fruit stall, showing the crates of apples and bags of oranges neatly arranged in arrays.



Extension challenge: Max finds a crate of 144 pears. He wants to share them equally between 12 baskets. How many pears go in each basket? If he sells each pear for 25p, how much money would he make if he sold half of the pears?